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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/676,367	09/29/2000	Yoshiaki Yokoyama	Yaguchi-0012	2186

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EXAMINER
RINEHART, KENNETH

ART UNIT	PAPER NUMBER
3749	

DATE MAILED: 01/25/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/676,367	Applicant(s) YOKOYAMA ET AL.	
	Examiner Kenneth B Rinehart	Art Unit 3749	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 September 2000* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-36* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *34 and 35* is/are allowed.

6)☐ Claim(s) _____ is/are rejected.

7)☒ Claim(s) *14 and 20* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☒ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *4* .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Information Disclosure Statement

The information disclosure statement filed 8/22/01 fails to comply with 37 CFR 1.98(a)(3) because it does not include a concise explanation of the relevance, as it is presently understood by the individual designated in 37 CFR 1.56(c) most knowledgeable about the content of the information, of each patent listed that is not in the English language. It has been placed in the application file, but the information referred to therein has not been considered.

Document 8-501601 is missing and there is no statement of relevance or abstract enclosed.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 23-31, and 36 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 23 recites the limitation "the heated residue" in line 6. There is insufficient antecedent basis for this limitation in the claim.

Regarding claim 36, the phrase "and the like" renders the claim(s) indefinite because the claim(s) include(s) elements not actually disclosed (those encompassed by "and the like"), thereby rendering the scope of the claim(s) unascertainable. See MPEP § 2173.05(d).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-13, 15-19, 21-23, 25-29, 31, 32, 33, and 36 are rejected under 35 U.S.C. 102(b) as being anticipated by Rickard. Rickard shows introducing the first soil to a hermetic zone (11, 16 ,fig. 2), thermally decomposing at least a part of the organic halides by heating the first soil under reduced pressure or wherein the soil containing organic halides is thermally decomposed under reduced pressure (col. 17, lines 13-15), the organic halides are dioxins (col. 11, lines 34-38) reducing the concentration of halogen contained in gases produced by the thermal decomposition or heating of the soil or first soil (40, 50, 63, fig. 2), wherein a thermally decomposed residue of the first soil is cooled after the hermetic zone is purged by a purge gas which is substantially organic halide free and not capable of generating organic halides (42, fig. 2, col. 17, lines 49-60), wherein the purge gas contains at least one element selected from the group consisting of helium neon, argon , xenon, nitrogen and hydrogen (col. 17, lines 49-60), the thermally decomposing step is performed in the hermetic zone where an oxygen concentration is controlled (col. 17, lines 3-12), heating the first soil so that at least a part of the organic halides are evaporated or decomposed (col. 16, 32-65), introducing a heated residue of the soil to a hermetic zone (col. 16, line 21-31), cooling the heated residue of the first soil (19, 32, fig. 2) after the hermetic zone is purged by a purge gas which is substantially organic halide free and not capable of generating organic halides (42, col. 17, lines 49-60), the concentration of halogen contained in gases produced by the thermal decomposition of soil is reduced (40, 50, 63, fig. 2),

means for introducing a heated residue of the soil from the means for heating the soil to the hermetic zone (20, 11, fig. 2, col. 16, lines 21-31), wherein an object to be treated containing organic halides is thermally decomposed under reduced pressure (12, fig. 2, col. 17, lines 13-16), means for heating the object or soil (36, fig. 2), a hermetic zone (16, fig. 2), means for introducing the heated residue to the hermetic zone (20, 11, fig. 2, col. 16, lines 21-31), means for purging the hermetic zone by a purge gas which is substantially organic halide free (which is short of organic halides), and (col. 17, lines 49-58), means for cooling the heated residue (19, fig. 2), the heating means is a thermal decomposition furnace for thermally decomposing the object (16, fig. 2), the heating means is a reduced pressure thermal decomposition furnace for thermally decomposing the object to be treated under reduced pressure (16, fig. 2), wherein the purging means introduces the purge gas after the pressure in the hermetic zone is reduced (col. 17, lines 13-58), reforming means for reforming gases produced by the heating of the object at a first temperature at which dioxins are decomposed (40, 63, fig. 2), cooling means for cooling the produced gas to a second temperature so that an increase in the concentration of dioxins in the gases is suppressed (54, fig. 2), wherein an object to be treated is passed through a furnace allowing the control of thermal decomposition temperature or through a plurality of reduced pressure furnaces different in thermal decomposition temperature when being subjected to thermal decomposition treatment while the pressure is being reduced from normal pressure (fig. 2, col. 11 lines 8-14, col. 17, lines 12-36), wherein a furnace allowing the control of thermal decomposition temperature at which an object to be treated is subjected to thermal decomposition treatment is provided, the pressure in the furnace is changed from normal pressure to a predetermined degree of vacuum, and thus the degree of vacuum is allowed to be

maintained (fig. 2, col. 11, lines 8-14, col. 17, lines 12-36), wherein a heated residue containing residual dioxins generated from waste disposal facilities, factories and the like is treated while being heated with a reduction in pressure (12', fig. 2, col. 1, lines 9-14, col. 16, lines 18-25), .

Allowable Subject Matter

Claims 14 and 20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 24 and 30 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Claims 34 and 35 are allowed.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Taya et al shows a volume reducing treatment. Przewalski, Fochtman et al, Ryback shows a method for soil detoxification. Meenan et al shows a method for separating dioxin from solids. Miyata et al shows a method for decomposing dioxins. Price shows a method for ex situ cleaning of contaminated soils. Hashimoto et al shows a method for decomposing halogenated organic compounds. Cilberti et al shows a method for disposing of hazardous waste materials. Abboud et al shows a closed loop incineration method. Maejima shows an incinerator for removing noxious substances. Angelo et al shows a process for chemical treatment. De Leur shows a method for cleaning up contaminated soil. Alvi et al shows a plasma arc decomposition method. Veltmann shows a thermal desorption unit.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenneth B Rinehart whose telephone number is 703-308-1722. The examiner can normally be reached on 7:30-4:30 M-F.

KBR
January 15, 2002

Ira S. Lazarus
Supervisory Patent Examiner
Group 3700